

**METHOD AND APPARATUS  
FOR INJECTING FLUID INTO ANIMALS AND  
DISPOSABLE FRONT LOADABLE SYRINGE THEREFOR**

**Abstract of the Disclosure:**

5                   An animal fluid injector, replaceable  
syringe and method of replacement of the syringe in  
the injector are provided in which the syringe is  
loadable and unloadable into and from the injector  
through the open front end of a pressure jacket of  
10 the injector, thereby permitting replacement  
without retraction of the syringe plunger drive or  
disconnection of the injection tubing. The syringe  
is provided with a pressure restraining front end,  
such as an integral or removable cap with structure  
15 such as threads that lock the syringe to the front  
end of the jacket by mating with threads on the  
jacket. A mechanism in the injector, which  
includes, for example, a key on cam ring operated  
by a lever with one hand of an operator, interacts  
20 with structure such as asymmetrically spaced notches  
on the back end of the syringe to, for example,  
rotate the syringe and simultaneously translate or  
rotate a coupling on the syringe plunger into and  
out of engagement with the plunger drive in the  
25 injector.